

# CLIMATE CHANGE

Climate change is a global problem, and it requires solutions on a global scale. One of those is hiding in plain sight. Our lands and waters provide an untapped opportunity – proven ways of storing and reducing carbon emissions in the world’s forests, grasslands and wetlands. We call this Natural Solutions.

More than 30% of the climate change goals that our world leaders established at the 2015 Paris Climate Convention can be achieved through the power of nature.

This means that nature-based solutions – such as stopping deforestation and restoring coastal ecosystems – can get us more than a third of the way to the emission reductions needed by 2030.

## SOME FACTS TO PONDER:



**Higher Temperatures;** Earth’s temperatures in 2015 were the hottest ever recorded ([source: NASA](#)). Why does this matter? Because a change of even 1 degree Fahrenheit – which may sound small – can upset the delicate balance of ecosystems, and affect plants and animals that inhabit them.



**Changing Landscapes and Wildlife Habitat;** Rising temperatures and changing patterns of precipitation are changing where plants grow, and in the case of our oceans, encouraging the proliferation of species that impact native ocean habitat. **As landscapes and habitats literally shift, wildlife must quickly adjust.** Experts predict that one-fourth of Earth’s species will be headed for extinction by 2050 if the warming trend continues at its current rate.



**Rising Seas;** As ocean waters warm, they expand, causing sea-levels to rise. Melting glaciers compound the problem by dumping even more fresh water into the oceans. Rising seas threaten to inundate low-lying areas and islands, threaten dense coastal populations, erode shorelines, damage property and destroy ecosystems such as mangroves and wetlands that protect coasts against storms.



**Communities at Risk;** In the U.S. alone, half of its residents live within 50 miles of the coast. Worldwide, approximately 100 million people live within three feet of sea level. Sea level rise associated with climate change could displace tens of millions of people in low-lying areas especially in developing countries. Inhabitants of some small island countries that rest barely above the existing sea level are already abandoning their islands, some of the world's first climate change refugees. In fact, in May 2016, the residents of Isle de Jean Charles were given \$48 million to move becoming the first U.S. based climate refugees.



**Increased Risk of Storms, Droughts, and Floods;** Climate change is intensifying drought, storms, and floods around the world. Where nature has been destroyed by development, communities are at risk from these intensified climate patterns. Scientists around the world are studying how nature can be a buffer for these intensified weather patterns, and TNC is working with leaders and communities to implement solutions that make a difference for nature and people.



**Economic Impact;** The true economic impact of climate change is hard to predict. But it's safe to say that many key economic sectors – from fishing to energy to water utilities – will feel long-term impacts of climate change. From warming seas, which encourage proliferation of non-native species that impact fishing industries, to rising temperatures, which impact energy usage around the world, our shifting global climate will force many industries to move quickly to adapt to change. Even recreation and tourism industries are weather-dependent – with many planning based on historic weather patterns, which climate change will disrupt. As we move into an era in which climate change impacts are all around us, adapting to these changes quickly will be key for all sectors of the global economy.